# DEPARTMENT OF TRANSPORTATION FEDERAL AVATION ADMINISTRATION

6A6
Revision 12
Tracor (Convair)
340
440
Military C-131B
Military C-131D
Military C-131E
Military C-131F/R4Y-1
January 1, 2001

## Aircraft Specification 6A6

Manufacturer Kelowna Flightcraft R & D Ltd.

#1 5855 Kelowna Airport Kelowna, BC, Canada V1V 1S1

## I - Model 340 Approved March 27, 1952

The Model 340 airplane is basically similar for all dash numbers, the only differences being in the type of equipment and interiors for the customer's airplane.

Engines 2 P&W Double Wasp CB3, CB4, CB16, CB17 or Military R-2800-83AM7 (See NOTE 8

and 12)

Fuel 100/130 grade aviation gasoline (CB3 and CB16)

108/135 grade aviation gasoline (CB4, CB17 and R-2800-83AM7)

**Engine Limits** 

			M.P.	
	<u>HP.</u>	<u>R.P.M.</u>	In. Hg.	<u>Alt.</u>
P&W Double Wasp CB3				
Takeoff (two minutes) (dry)	2050	2700*	55.0	S.L.
Takeoff (two minutes) (dry)	2050	2700*	53.0	6900'
Takeoff (two minutes) (dry)	1950	2800*	53.0	S.L.
Takeoff (two minutes) (dry)	1950	2800*	51.0	9800'
*(See NOTE 3 for limitations)				
Takeoff (two minutes) (wet)	2400	2800	59.5	S.L.
Takeoff (two minutes) (wet)	2400	2800	59.0	5000'
(See Item 103(a) for ADI installation				
and Engine Specification E-264 for				
ADI fluid composition)				
Maximum continuous	1800	2600	48.5	S.L.
Maximum continuous	1800	2600	46.5	9200'

(Straight line manifold pressure variation with altitude shown)

P&W Double Wasp CB16				
Low impeller gear ratio 7.29:1				
Takeoff (two minutes) (dry)	2050	2700*	55.0	S.L.
Takeoff (two minutes) (dry)	2050	2700*	53.0	6900'
Takeoff (two minutes) (dry)	1950	2800*	53.0	S.L.
Takeoff (two minutes) (dry)	1950	2800*	51.0	9800'
*(See NOTE 3 for limitations)	•	•	•	

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## Engine Limits (Cont'd)

	<u>HP.</u>	R.P.M.	M.P. In. Hg.	Alt.
P&W Double Wasp CB16 (Cont'd)	111.	11.1.111.	<u> </u>	11111
Takeoff (two minutes) (wet)	2400	2800	59.5	S.L.
Takeoff (two minutes) (wet)	2400	2800	59.0	5000'
(See Item 103(a) for ADI installation and Engine Specification E-264 for ADI fluid composition)				
Maximum continuous	1800	2600	48.5	S.L.
Maximum continuous	1800	2600	46.5	9200'
High impeller gear ratio 8.58:1				
Maximum continuous	1700	2600	48.5	10,000'
Maximum continuous	1700	2600	47.5	16,800'

(Straight line manifold pressure variation with altitude shown)

P&W Double Wasp CB4				
Takeoff (two minutes) (dry)	2200	2800*	60.0	S.L.
Takeoff (two minutes) (dry)	2200	2800*	59.0	5200'
*(See NOTE 3 for limitations)				
Takeoff (two minutes) (wet)	2500	2800	62.0	S.L.
Takeoff (two minutes) (wet)	2500	2800	61.5	3700'
(See Item 103(a) for ADI installation				
and Engine Specification E-264 for				
ADI fluid composition)				
Maximum continuous	1900	2600	51.5	S.L.
Maximum continuous	1900	2600	50.0	7100'

(Straight line manifold pressure variation with altitude shown)

P&W Double Wasp CB17 and				
Military R-2800-83AM7				
Low impeller gear ratio 7.29:1				
Takeoff (two minutes) (dry)	2200	2800*	60.0	S.L.
Takeoff (two minutes) (dry)	2200	2800*	59.0	5200'
*(See NOTE 3 for limitations)				
Takeoff (two minutes) (wet)	2500	2800	62.0	S.L.
Takeoff (two minutes) (wet)	2500	2800	61.5	3700'
(See Item 103(a) for ADI installation				
and Engine Specification E-264 for				
ADI fluid composition)				
Maximum continuous	1900	2600	51.5	S.L.
Maximum continuous	1900	2600	50.0	7100'
High impeller gear ratio 8.58:1				
Maximum continuous	1750	2600	51.5	10,000'
Maximum continuous	1750	2600	49.5	15,000'

(Straight line manifold pressure variation with altitude shown)

## Airspeed Limits

V <sub>NO</sub>	(Normal Operating)	260 knots True Ind. S.L. to 10,000'								
V <sub>NE</sub>	(Never Exceed)	293 knots True Ind. S.L. to 10,000'								
(Above	(Above altitudes shown, reduce speed 6 knots per 1000')									
$V_{A}$	(Maneuvering)	154 knots True Ind.								
V <sub>FE</sub>	(Flaps Down 0° to 20°)	174 knots True Ind.								
V <sub>FE</sub>	(Flaps Down 20° to 30°)	156 knots True Ind.								

Airspeed Limits (Cont'd)

V <sub>FE</sub>	(Flaps Down 30° to 40°)	148 knots True Ind.
V <sub>LE</sub>	(Landing Gear Extended)	174 knots True Ind.
$V_{LO}$	(Landing Gear Operation) (Retraction)	130 knots True Ind.
$V_{LO}$	(Landing Gear Operation) (Extension)	174 knots True Ind.

C.G. Range

See NOTE 1(b) for retraction moment.

		Forv	ward	A	ft
		%		%	
Gross Weight (lbs.)	Landing Gear Position	MAC	Sta.	MAC	Sta.
39,500 and Below	Down (Takeoff & Landing)	13.0	365.8	34.0	389.8
43,000	Down (Takeoff & Landing)	17.0	370.4	34.0	389.8
47,000	Down (Takeoff)	19.0	372.7	34.0	389.8
39,500 and Below	Up (Enroute Operation)	8.5	360.6	35.0	390.9
43,000	Up (Enroute Operation)	12.5	365.7	35.0	390.9
47,000	Up (Enroute Operation)	14.9	368.2	35.0	390.9

(Straight line variation between above listed values)

Maximum Weight

Takeoff	47,000 lbs.	(Model 340 airplanes which have the requirements of Service Bulletin 340-144B incorporated which are being operated at the Model 440 weights and performance limitations as contained in the Model 440 FAA Approved Airplane Flight Manual may be operated at increased Maximum Takeoff Weights. See NOTE 7.)
Landing	46,500 lbs.	
Zero Fuel	45,000 lbs.	(All weight in airplane above this value must consist of fuel, oil and ADI fluid in the wing)

Minimum Crew

2 - Pilot and Copilot (Sta. 84)

Maximum Passengers

44 (CAR 4b.362) (Also refer to FAR §91.607)

Maximum Baggage

Compa	rtment	Capacity	Max. Floor Loading	Arm
Fwd. Luggage LH	(Sta. 176-243)	200 lbs. 300 lbs. 300 lbs.	25#/ft <sup>2</sup> (Shelf 3) 25#/ft <sup>2</sup> (Shelf 2) 100#/ft <sup>2</sup> (Floor)	(210.5)
Fwd. Baggage RH	(Sta. 131-243)	1800 lbs.	150#/ft <sup>2</sup>	(187.0)
Belly Compt.	(Sta. 193-319)	1000 lbs.	65#/ft <sup>2</sup>	(250.0)
Aft Baggage	(Sta. 730-798)	1800 lbs.	150#/ft <sup>2</sup>	(765.0)

Fuel Capacity

1730 U.S. gal. (One 865 U.S. gal. tank in each wing) (Sta. 397) (See NOTE 1(d) for "Unmeasurable fuel.")

Oil Capacity

30 U.S. gal. in each nacelle (Sta. 339)

Serial Numbers Eligible

2 through 311

Required Equipment

In addition to the pertinent required basic equipment specified in CAR 4b, the following items of equipment must be installed: 1; 3; 4; 100; 103; 105; 109; 112; 113(a); 114; 200; 201 except (c); 202; 204; 205; 206; 300; 310; 401; 429; 601

## II - Model 340-30 (Original Model 340 prototype modified)

Engines

2 P&W Double Wasp CB16 or CB17

Fuel

100/130 grade aviation gasoline (CB16); 108/135 grade aviation gasoline (CB17)

**Engine Limits** 

			M.P.	
	<u>HP.</u>	<u>R.P.M.</u>	In. Hg.	<u>Alt.</u>
P&W Double Wasp CB16				
Low impeller gear ratio 7.29:1				
Takeoff (two minutes) (dry)	2050	2700*	55.0	S.L.
Takeoff (two minutes) (dry)	2050	2700*	53.0	6900'
Takeoff (two minutes) (dry)	1950	2800*	53.0	S.L.
Takeoff (two minutes) (dry)	1950	2800*	51.0	9800'
*(See NOTE 3 for limitations)				
Takeoff (two minutes) (wet)	2400	2800	59.5	S.L.
Takeoff (two minutes) (wet)	2400	2800	59.0	5000'
(See Item 103(a) for ADI installation				
and Engine Specification E-264 for				
ADI fluid composition)				
Maximum continuous	1800	2600	48.5	S.L.
Maximum continuous	1800	2600	46.5	9200'
High impeller gear ratio 8.58:1				
Maximum continuous	1700	2600	48.5	10,000'
Maximum continuous	1700	2600	47.5	16,800'

(Straight line manifold pressure variation with altitude shown)

P&W Double Wasp CB17				
Low impeller gear ratio 7.29:1				
Takeoff (two minutes) (dry)	2200	2800*	60.0	S.L.
Takeoff (two minutes) (dry)	2200	2800*	59.0	5200'
*(See NOTE 3 for limitations)				
Takeoff (two minutes) (wet)	2500	2800	62.0	S.L.
Takeoff (two minutes) (wet)	2500	2800	61.5	3700'
(See Item 103(a) for ADI installation				
and Engine Specification E-264 for				
ADI fluid composition)				
Maximum continuous	1900	2600	51.5	S.L.
Maximum continuous	1900	2600	50.0	7100'
High impeller gear ratio 8.58:1				
Maximum continuous	1700	2600	51.5	10,000'
Maximum continuous	1700	2600	49.5	15,000'

(Straight line manifold pressure variation with altitude shown)

Airspeed Limits

V <sub>NO</sub>	(Normal Operating)	234 knots True Ind. S.L. to 16,500'
V <sub>NE</sub>	(Never Exceed)	266 knots True Ind. S.L. to 16,500'
(Above	altitudes shown, reduce speed 6 knots per	r 1000')
$V_{A}$	(Maneuvering)	154 knots True Ind.
$V_{FE}$	(Flaps Down 0° to 20°)	174 knots True Ind.
$V_{FE}$	(Flaps Down 20° to 30°)	156 knots True Ind.
$V_{FE}$	(Flaps Down 30° to 40°)	148 knots True Ind.

## Airspeed Limits (Cont'd)

V <sub>LE</sub>	(Landing Gear Extended)	174 knots True Ind.
$V_{LO}$	(Landing Gear Operation) (Retraction)	130 knots True Ind.
$V_{LO}$	(Landing Gear Operation) (Extension)	174 knots True Ind.

#### C.G. Range

See NOTE 1(b) for retraction moment.

		Forv	vard	A	ft
Gross Weight (lbs.)	Landing Gear Position	% MAC	Sta.	% MAC	Sta.
31,000 to 39,500	Down (Takeoff & Landing)	13.0	365.8	34.0	389.8
43,000	Down (Takeoff & Landing)	17.0	370.4	34.0	389.8
46,725	Down (Takeoff)	18.8	372.4	34.0	389.8
31,000 to 39,500	Up (Enroute Operation)	8.5	360.6	35.0	390.9
43,000	Up (Enroute Operation)	12.5	365.7	35.0	390.9
46,725	Up (Enroute Operation)	15.0	368.0	35.0	390.9

(Straight line variation between above listed values)

Maximum Weight

Takeoff	46,725 lbs.	
Landing	44,500 lbs.	
Zero Fuel	43,000 lbs.	(All weight in airplane above this value must
		consist of fuel, oil and ADI fluid in the wing)

Minimum Crew 2 - Pilot and Copilot (Sta. 84)

Maximum Passengers 22 (CAR 4b.362)

Fuel Capacity 1730 U.S. gal. (One 865 U.S. gal. tank in each wing) (Sta. 397)

(See NOTE 1(d) for "Unmeasurable fuel.")

Oil Capacity 30 U.S. gal. in each nacelle (Sta. 339)

Serial Numbers Eligible CVAC No. 1 only

Required Equipment In addition to the pertinent required basic equipment specified in CAR 4b, the following

items of equipment must be installed: 1(a); 3(a); 4; 100(a) or (b); 103; 109; 112; 113(a);

114; 200; 201(a) or (c); 202; 204; 205; 206; 300; 401; 429; 601

## III - Model 440 Approved January 30, 1956

The Military Model C-131E is actually a Model 440.

See NOTE 5 for required changes to Military Model C-131E aircraft prior to operation under this section.

The Model 440 airplane is basically similar for all dash numbers, the only differences being in the type of equipment and interiors for the customer's airplane.

Engines 2 P&W Double Wasp CB3, CB4, CB16, CB17 or Military R-2800-103W (See NOTE 8

and 12)

Fuel 100/130 grade aviation gasoline (CB3, CB16 and R-2800-103W at CB16 ratings)

108/135 grade aviation gasoline (CB4, CB17 and R-2800-103W at CB17 ratings)

## Engine Limits

			M.P.	
	<u>HP.</u>	<u>R.P.M.</u>	In. Hg.	<u>Alt.</u>
P&W Double Wasp CB3				
Takeoff (two minutes) (dry)	2050	2700*	55.0	S.L.
Takeoff (two minutes) (dry)	2050	2700*	53.0	6900'
Takeoff (two minutes) (dry)	1950	2800*	53.0	S.L.
Takeoff (two minutes) (dry)	1950	2800*	51.0	9800'
*(See NOTE 3 for limitations)				
Takeoff (two minutes) (wet)	2400	2800	59.5	S.L.
Takeoff (two minutes) (wet)	2400	2800	59.0	5000'
(See Item 103(a) for ADI installation and Engine Specification E-264 for ADI fluid composition)				
Maximum continuous	1800	2600	48.5	S.L.
Maximum continuous	1800	2600	46.5	9200'

(Straight line manifold pressure variation with altitude shown)

D&W Double Ween CD16 and				
P&W Double Wasp CB16 and				
Military R-2800-103W				
Low impeller gear ratio 7.29:1				
Takeoff (two minutes) (dry)	2050	2700*	55.0	S.L.
Takeoff (two minutes) (dry)	2050	2700*	53.0	6900'
Takeoff (two minutes) (dry)	1950	2800*	53.0	S.L.
Takeoff (two minutes) (dry)	1950	2800*	51.0	9800'
*(See NOTE 3 for limitations)				
Takeoff (two minutes) (wet)	2400	2800	59.5	S.L.
Takeoff (two minutes) (wet)	2400	2800	59.0	5000'
(See Item 103(a) for ADI installation				
and Engine Specification E-264 for				
ADI fluid composition)				
Maximum continuous	1800	2600	48.5	S.L.
Maximum continuous	1800	2600	46.5	9200'
High impeller gear ratio 8.58:1				
Maximum continuous	1700	2600	48.5	10,000'
Maximum continuous	1700	2600	47.5	16,800'

(Straight line manifold pressure variation with altitude shown)

P&W Double Wasp CB4				
Takeoff (two minutes) (dry)	2200	2800*	60.0	S.L.
Takeoff (two minutes) (dry)	2200	2800*	59.0	5200'
*(See NOTE 3 for limitations)				
Takeoff (two minutes) (wet)	2500	2800	62.0	S.L.
Takeoff (two minutes) (wet)	2500	2800	61.5	3700'
(See Item 103(a) for ADI installation				
and Engine Specification E-264 for				
ADI fluid composition)				
Maximum continuous	1900	2600	51.5	S.L.
Maximum continuous	1900	2600	50.0	7100'

(Straight line manifold pressure variation with altitude shown)

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Engine Lin	mis (CC	m u,

			M.P.	
	HP.	R.P.M.	In. Hg.	Alt.
P&W Double Wasp CB17 and				
Military R-2800-103W				
Low impeller gear ratio 7.29:1				
Takeoff (two minutes) (dry)	2200	2800*	60.0	S.L.
Takeoff (two minutes) (dry)	2200	2800*	59.0	5200'
*(See NOTE 3 for limitations)				
Takeoff (two minutes) (wet)	2500	2800	62.0	S.L.
Takeoff (two minutes) (wet)	2500	2800	61.5	3700'
(See Item 103(a) for ADI installation				
and Engine Specification E-264 for				
ADI fluid composition)				
Maximum continuous	1900	2600	51.5	S.L.
Maximum continuous	1900	2600	50.0	7100'
High impeller gear ratio 8.58:1				
Maximum continuous	1750	2600	51.5	10,000'
Maximum continuous	1750	2600	49.5	15,000'

(Straight line manifold pressure variation with altitude shown)

Airspeed Limits

V <sub>NO</sub>	(Normal Operating)	260 knots True Ind. S.L. to 13,000'
V <sub>NE</sub>	(Never Exceed)	293 knots True Ind. S.L. to 13,000'
(Above	altitudes shown, reduce speed 6 knots per	1000')
V <sub>A</sub>	(Maneuvering)	155 knots True Ind.
V <sub>FE</sub>	(Flaps Down 0° to 20°)	174 knots True Ind.
V <sub>FE</sub>	(Flaps Down 20° to 30°)	156 knots True Ind.
V <sub>FE</sub>	(Flaps Down 30° to 40°)	148 knots True Ind.
V <sub>LE</sub>	(Landing Gear Extended)	174 knots True Ind.
$V_{LO}$	(Landing Gear Operation) (Retraction)	130 knots True Ind.
$V_{LO}$	(Landing Gear Operation) (Extension)	174 knots True Ind.

C.G. Range

See NOTE 1(b) for retraction moment.

		Forv	vard		Aft
		%		%	
Gross Weight (lbs.)	Landing Gear Position	MAC	Sta.	MAC	Sta.
39,500 and Below	Down (Takeoff & Landing)	13.0	365.8	34.0	389.8
43,000	Down (Takeoff & Landing)	17.0	370.4	34.0	389.8
48,000	Down (Takeoff)	19.6	373.3	34.0	389.8
49,100	Down (Takeoff)	20.1	373.9	34.0	389.8
49,700	Down (Takeoff)	20.4	374.2	34.0	389.8
39,500 and Below	Up (Enroute Operation)	8.5	360.6	35.0	390.9
43,000	Up (Enroute Operation)	12.5	365.7	35.0	390.9
48,000	Up (Enroute Operation)	15.6	368.7	35.0	390.9
49,100	Up (Enroute Operation)	16.2	369.4	35.0	390.9
49,700	Up (Enroute Operation)	16.5	369.7	35.0	390.9

(Straight line variation between above listed values)

Maximum Weight

Takeoff	49,700 lbs. (CB17)	(Model 440 airplanes which are being operated per the Supplementary Performance
		Information contained in Appendix "A" of the
		Model 440 FAA Approved Airplane Flight
		Manual and are listed therein.)
	49,100 lbs. CB4/CB17	
	48,000 lbs. CB3/CB16	
Landing	47,650 lbs.	
Zero Fuel	47,000 lbs.	(All weight in airplane above this value must
	45,000 lbs C-131E	consist of fuel, oil and ADI fluid in the wing)
	and R4Y-1/-2	

Minimum Crew 2 - Pilot and Copilot (Sta. 84)

Maximum Passengers 52 (CAR 4b.362) (Also refer to FAR §91.607)

Cargo aircraft, none (for eligibility of Model 440 cargo aircraft as passenger carriers, see NOTE 5, Part 2, for required changes).

Maximum Baggage

		T	
Compartment	Capacity	Max. Floor Loading	Arm
Fwd. Luggage LH (Sta. 176-243)	200 lbs.	25#/ft <sup>2</sup> (Shelf 3)	(210.5)
(44 Passenger Version Only)	300 lbs.	25#/ft <sup>2</sup> (Shelf 2)	, ,
	300 lbs.	100#/ft <sup>2</sup> (Floor)	
(52 Passenger Version Only)	N/A	N/A	N/A
Fwd. Baggage RH (Sta. 131-243)	1800 lbs.	150#/ft <sup>2</sup>	(187.0)
(44 Passenger Version Only)			
Coat Rack Area RH (Sta. 131-179)	30 Coats	210# Per Coat Rod	(155.0)
No Floor or Side Wall Tie Downs	Per Rod		
(52 Passenger Version Only)			
Belly Compt. (Sta. 193-319)	1000 lbs.	65#/ft <sup>2</sup>	(250.0)
Aft Baggage (Sta. 730-798)	1800 lbs.	150#/ft <sup>2</sup>	(765.0)

Fuel Capacity 1730 U.S. gal. (One 865 U.S. gal. tank in each wing) (Sta. 397)

(See NOTE 1(d) for "Unmeasurable fuel.")

Oil Capacity 30 U.S. gal. in each nacelle (Sta. 339)

Serial Numbers Eligible 312 through 510 (including 327A)

Required Equipment In addition to the pertinent required basic equipment specified in CAR 4b, the following

items of equipment must be installed: 1; 3; 4; 100; 103; 105; 109; 112; 113(b); 114; 200;

201 except (a), (b) and (c); 202; 204; 205; 206; 300; 310; 405; 429; 601

Specifications Pertinent to All Models

Datum Station 0 (Fuselage Nose)

MAC 114.3 in. L.E. MAC (Sta. 350.90)

Leveling Means Longitudinal leveling lugs inside nose wheel well LH side (Sta. 29.75 and Sta. 48.85).

Lateral leveling lugs inside nose wheel well on forward bulkhead (Sta. 9).

Control Surface Movements

Aileron (angular measurements from streamline)

21½° +2°/-0° Up 21° +2°/-0° Down

(Rig  $3^{\circ} \pm 1^{\circ}$  down from streamline)

## Control Surface Movements (Cont'd)

Aileron Trim Tab (angular from tab position when ailerons drooped  $3^{\circ}\pm 0^{\circ}$ )  $7^{\circ}\pm 1/2^{\circ}$  Up  $7^{\circ}\pm 1/2^{\circ}$  Down

(tabs rigged  $2\frac{1}{2}^{\circ} \pm 1^{\circ}$  Up from streamline when ailerons drooped  $3^{\circ} \pm 0^{\circ}$ )

Aileron Tab Servo Action (angular from streamline)

Tab Indicator	
Setting	Tah Pos

Setting	<u>Tab Position</u>	Aileron Position
0°	2½° ±1° Up	3° ±0° Droop
$0$ $\circ$	$17\frac{1}{2}^{\circ} \pm 2^{\circ} \text{ Down}$	21½° Up
$0_{\circ}$	17° ±2° Up	21° Down

NOTE: Settings are measured from a relative position when wing, aileron and tab are streamline.

Rudder (angular dimension from stabilizer chord line)

 $18\frac{1}{2}^{\circ} +1^{\circ}/-0^{\circ} \text{ Right}$   $15^{\circ} +0^{\circ}/-1^{\circ} \text{ Left}$ 

Rudder Flight Tab (angular dimension from stabilizer chord line) 2° Left

Rudder Flight Tab Servo Action (angular dimension from stabilizer chord line)

Full Right Rudder Pedal 15° ±½° Left Full Left Rudder Pedal 11° ±½° Right

NOTE: Rudder chord line and stabilizer chord line coincide at rudder neutral position.

Rudder Trim Tab Setting (angular dimension from stabilizer chord line)

Tab Control SettingTab SettingFull Right (clockwise) $9^{\circ} \pm 1^{\circ}$  LeftFull Left (counterclockwise) $9^{\circ} \pm 1^{\circ}$  Right

NOTE: Check deflections with rudder held neutral

Rudder Trim Tab Servo (angular dimension from rudder chord line)

Action

 $0^{\circ} \pm 2^{\circ}$  Left Servo action is negligible. It is  $0^{\circ} \pm 2^{\circ}$  Right measured with rudder at full

deflection.

NOTE: Rudder chord line and stabilizer chord line coincide at rudder neutral position.

Elevator (angular dimension from elevator streamline position

 $24\frac{1}{2}^{\circ} +1^{\circ}/-0^{\circ} Up$   $9\frac{1}{2}^{\circ} +1^{\circ}/-0^{\circ} Down$ 

Elevator Trim Tab (RH) (angular dimension with tab rigged at streamline with

elevator and with elevator streamline to stabilizer)  $7\frac{1}{2}$ °  $\pm\frac{1}{2}$ ° Up  $11\frac{1}{2}$ °  $\pm\frac{1}{2}$ ° Down

Elevator Trim Tab (RH) (angular dimension from elevator chord line)

Servo Action

Tab PositionElevator Position $6\frac{1}{4}^{\circ} \pm \frac{1}{2}^{\circ}$  Down $24\frac{1}{2}^{\circ} \pm 0^{\circ}$  Up $1^{\circ} \pm \frac{1}{2}^{\circ}$  Down $9\frac{1}{2}^{\circ} \pm 0^{\circ}$  Down

#### Control Surface Movements (Cont'd)

Elevator Servo Tab (LH) (angular dimension from elevator chord line)

Tab Position	<b>Elevator Position</b>
$0^{\circ} \pm 0^{\circ}$ (at streamline with	5° Down
elevator)	
12° ±½° Down	24½° ±0° Up
½° ±½° Down	9½° ±0° Down

Certification Basis

Type Certificate No. 6A6 (Transport Category, CAR 4b, effective July 20, 1950, and Amendment #1, #3, and #5, except smoke detectors not installed in cargo compartments.)

**Production Basis** 

None at this time.

General Dynamics, Convair Division, produced Model 340/440 aircraft, serial numbers 2 through 510, and parts under FAA Production Certificate (PC) Number 605 in San Diego, California, until 1995. PC 605 became invalid when the Type Certificate (TC) was transferred to Tracor Flight Systems, Inc. Tracor was issued FAA Production Certificate 708NM for the production of spare parts and type design changes for the Model 340/440. The Tracor PC was surrendered in 1998 when the TC was endorsed to Kelowna Flightcraft, Kelowna, BC, Canada

Equipment

Approval for the installation of all items of equipment listed herein has been obtained by the aircraft manufacturer except those items preceded by an asterisk (\*). The asterisk denotes that approval has been obtained by someone other than the aircraft manufacturer. An item marked with an asterisk may not have been manufactured under a FAA monitored or approved quality control system. Conformity must be determined if the item is not identified by a Form ACA-186, PMA or other evidence of FAA production approval.

Propellers and Propeller Accessories (Except Anti-Icing Equipment)

		Weight	Arm
1. Prop	ellers - Model 340 (Including Original C-131D)		
(a)	2 Ham. Std. 43E60 Propellers	1093 lbs.	(227)
	43E60-9 Hubs, 6895A-8 Blades with de-icing		
	equipment. (Same as 43E60-301 propeller.)		
(b)	2 Ham. Std. 43E60-301 Propellers	1150 lbs.	(227)
	6895B-8 Blades with de-icing equipment.		
	(Alternate - Ham. Std. 43E60-325 or		
	43E60-333 Propeller.)		
(c)	2 Ham. Std. 43E60-319 Propellers	1150 lbs.	(227)
	6895D-8 Blades with de-icing equipment.		
(d)	2 Ham. Std. 43E60-325 Propellers	1150 lbs.	(227)
	6895E-8 Blades with de-icing equipment.		
	(Including original C-131D installation –		
	Model 340 types). (Alternate - Ham. Std.	1153 lbs.	(227)
	43E60-385 Propeller.)		
(e)	2 Ham. Std. 43E60-333 Propellers	1150 lbs.	(227)
	6895G-8 Blades with de-icing equipment.		
	(Alternate - Ham. Std. 43E60-387 Propeller.)	1150 lbs.	(227)

Propellers and Propeller Accessories (Except Anti-Icing Equipment) (Cont'd) Model 340 aircraft were not originally equipped for propeller reverse indication. Hamilton Standard developed one method of complying with the requirements of CAR Amendment 40-9 by directly aiding operators and by providing the following drawings to modify the propeller system to incorporate reverse indicating lights: SK-33116, SK-33008, SK-29660, SK-32994, SK-29316, SK-32758, HS-501733 and HS-86415.

2.	Prope (f)	llers - Model 440 (Including Original C-131D)  2 Ham. Std. 43E60-377 Propellers 6895E-8 Blades with de-icing equipment. (Including original C-131D installation - Model 440 types). (Has provisions for propeller reverse indication.)	1152 lbs.	(227)
	(g)	2 Ham. Std. 43E60-435 Propellers 6895E-8 Blades with de-icing equipment. (Has provisions for propeller reverse indication and feather latch.)	1152 lbs.	(227)
	(h)	2 Ham. Std. 43E60-469 Propellers 6895E-8 Blades with de-icing equipment. (Has provisions for propeller reverse indication, feather latch, low-pressure barrel and sensitive low pitch stop per Ham. Std. Bulletin No. 472.)	1159 lbs.	(227)
	Prope	llers - Military Versions		
	(i)	2 Ham. Std. 43E60-341 Propellers 6895B-8 Blades with de-icing equipment. (C-131B (Model 340-70), C-131F/R4Y-1 (Model 340-71) and C-131E (Model 440-72) only.)	1152 lbs.	(227)
	(j)	2 Ham. Std. 43E60-501 Propellers 6895B-8 Blades with de-icing equipment. (C-131F/R4Y-1 (Model 340-71) only per US Navy Aircraft Service Change (ASC) No. 5. Has provisions for propeller reverse indications.)	1152 lbs.	(227)
	(k)	2 Ham. Std. 43E60-523 Propellers 6895B-8 Blades with de-icing equipment. (C-131E (Model 440-72) only. Has provisions for propeller reverse indications.)	1152 lbs.	(227)
	(1)	2 Ham. Std. 43E60-539 Propellers 6895M-8 Blades with de-icing equipment. (C-131B (Model 340-70), C-131D and C-131E (Model 440-72) only per USAF T.O. 3-1-1.)	1158 lbs.	(227)
	(m)	2 Ham. Std. 43E60-565 Propellers 6895N-8 Blades with de-icing equipment. (C-131B (Model 340-70), C-131D and C-131E (Model 440-72) only per USAF T.O. 3-1-1.)	1158 lbs.	(227)

Applicable to all propellers: Diameter: Max. 13' 5-5/16"

Min. allowable for repairs 13' 1-9/16"

Pitch settings at 42" Sta.: Reverse  $-8^{\circ}$ , minimum low 30°, feathered 96° (approx.)

Propellers and Propeller Accessories (Except Anti-Leing Equipment) (Cont'd)	3.	Propeller Governors - Model 340 (Including Original C-131D)		
Anti-Icing Equipment) (Cont'd)		(a) 2 Ham. Std. 5U18-1 Constant Speed Control (Including original C-131D installation - Model 340 t	vnec)	26 lbs.
		(b) 2 Ham. Std. 5U18-18 Constant Speed Control (c) 2 Ham. Std. 5U18-35 Constant Speed Control	ypes)	27 lbs. 28 lbs.
			Weight	<u>Arm</u>
		Propeller Governors - Model 440 (Including Original C-131D)		
		(d) 2 Ham. Std. 5U18-62 Constant Speed Control (Including original C-131D installation - Model 440 types)	28 lbs.	(236)
		<ul> <li>(e) 2 Ham. Std. 5U18-94 Constant Speed Control</li> <li>(f) 2 Ham. Std. 5U18-115 Constant Speed Control</li> </ul>	28 lbs. 28 lbs.	(236) (236)
		•	20 103.	(230)
		Propeller Governors - Military Versions (g) 2 Ham. Std. 5U18-28 Constant Speed Control (C-131B, C-131E and C-131F/R4Y-1 only.)	28 lbs.	(236)
		(h) 2 Ham. Std. 5U18-47 Constant Speed Control (C-131B, C-131D and C-131E only per USAF T.O. 3-1-1.)	28 lbs.	(236)
	4.	2 Propeller Feathering Pumps, Pesco 1E-777-BL-1 (Ham. Std. Dwg. No. 66166-6)	28 lbs.	(346)
Engine and Engine Accessories - Fuel and Oil Systems	100.	Engines (See NOTE 8 and 12)		
•		<ul><li>(a) 2 P&amp;W Double Wasp CB16</li><li>(b) 2 P&amp;W Double Wasp CB17</li></ul>	4800 lbs. 4800 lbs.	(267) (267)
		(c) 2 P&W Military R-2800-103W	4800 lbs.	(267)
		(d) 2 P&W Double Wasp CB3	4734 lbs.	(267)
		(e) 2 P&W Double Wasp CB4	4734 lbs.	(267)
		(f) 2 P&W Military R-2800-83AM7	4800 lbs.	(267)
	103.	(a) Water-alcohol injection (CVAC Dwg. No. 340-0020700) with water-alcohol regulators (included with engines - P&W No. 169479 or		
		190255) (b) Water-alcohol injection fluid, 22 U.S. gal.	164 lbs.	(454)
	105.	System fuel, 8.8 U.S. gal. (See NOTE 1(c)) (1730 U.S. gal. wing fuel tanks)	53 lbs.	(391)
	109.	<ul> <li>Oil Coolers</li> <li>(a) 2 AiResearch 86764-13 Regulator Assy (Consists of 19469 Valve and 86745 Cooler.)</li> <li>(b) 2 AiResearch 87295-13 Regulator Assy (Consists of 18930-13 Valve and 86745 Cooler.)</li> <li>(c) 2 AiResearch 87270-155-13 Regulator Assy (Consists of 18910-2-155-13 Valve and 86745 Cooler.)</li> </ul>	80 lbs.	(296)

(236)

(236) (236)

Engine and Engine Accessories – Fuel and Oil Systems (Cont'd)	112.	System oil, 28.5 U.S. gal. (See NOTE 1(c)) (60 U.S. gal. oil tank installation) Ham. Std. propeller installation		213 lbs.	(291)
	113.	<ul> <li>4 Engine Muff Type Augmentors - Installation</li> <li>(a) CVAC Dwg. No. 340-6220195 (Model 340)</li> <li>(b) CVAC Dwg. No. 340-6227195 (Model 440) (Model 440 installation includes 2 exhaust mufflers CVAC Dwg. No. 340-6220110.)</li> </ul>		572 lbs. 572 lbs. 400 lbs.	(385) (385) (452)
	114.	Starters (a) 2 Jack & Heintz JH6ER12 (b) 2 Jack & Heintz JH6CE (c) 2 Eclipse Pioneer 36E00-4 (d) 2 AN4116R6FA (C-131B only.)	53 lbs. 53 lbs. 53 lbs. 56 lbs.	` ′	
	115.	2 Exhaust Mufflers Installation - CVAC Dwg. No. 340-7310077. (Required for Model 340 airplanes incorporating Service Bulletin 340-157. Required for Model 340 airplanes operating at Model 440 weights and performance limitations - See NOTE 7.)	400 lbs.	(452)	
Landing Gear	200.	2 Main Gear Shock Strut Assemblies (a) Menasco 528000 (b) Menasco 528400	547 lbs. 523 lbs.	(410) (410)	
	201.	Menasco 528000 and 528400 are interchangeable.  Main Wheel-Brake Assemblies, 12.50-16, Type III  Model 340 only with 1400 psi braking system  (a) 4 Goodyear Model LF1216HBMF  Assemblies  Wheel assembly 9540512 Tube Type  Brake assembly 9540621 (Skydrol)  (b) 4 Goodyear Model LF1216HBMG  Assemblies  Wheel assembly 9545012 Tube Type  Brake assembly 9545012 Tube Type	388 lbs. 388 lbs.	(408) (408)	
		Brake assembly 9540622 (MIL-H-5606)  Model 340-30 prototype only (c) 4 Goodrich Model 6201M Assemblies Wheel assembly H-3-708-M1 Tube Type Brake assembly G-2-593 (MIL-H-5606)	385 lbs.	(408)	
		<ul> <li>4 Main Wheel Assemblies, 12.50-16, Type III</li> <li>(d) Goodyear 9540512 Tube Type</li> <li>(e) Goodyear 9540512-1 Tube Type with steel drive ring</li> <li>(f) Goodyear 9540977 Tubeless Type</li> <li>(g) Goodyear 9540977-1 Tubeless Type with steel drive ring</li> </ul>	188 lbs. 212 lbs. 192 lbs. 216 lbs.	(408) (408) (408) (408)	
		Wheels must be installed in pairs of the same part			

number.

Landing Gear (Cont'd)		4 Main Brake Assemblies (1400 or 1700 psi system) (h) Goodyear 9540976 (MIL-H-5606) (i) Goodyear 9540998-1 (Skydrol) (j) Goodyear 95401104 (MIL-H-5606) (k) Goodyear 95401105 (Skydrol)		232 lbs. 232 lbs. 224 lbs. 224 lbs.	(408) (408) (408) (408)
		Brake part numbers must not be mixed on the same airplane.			
	202.	4 Main Wheel Tires	340 lbs.	(408)	
		<ul> <li>(a) 12.50-16, 12-ply rating, Type III, with Tubes</li> <li>(b) 12.50-16, 12-ply rating, Type III, Tubeless Type</li> <li>(c) 39x13, 14-ply rating, Type VII, Tubeless Type</li> </ul>			
		Tires must be installed in pairs of the same size and type.			
		It is not acceptable to install a tubeless tire on a tube-type wheel without a tube.			
		The maximum permissible weight of a tire and tube or tubeless tire is 110 pounds. Either new or retreaded, the total weight of a tire and tube or tubeless tire must not exceed this limit.			
		The maximum permissible weight of a tire and tube or tubeless tire is 98 pounds on wheels with steel drive rings. Either new or retreaded, the total weight weight of a tire and tube or tubeless tire must not exceed this limit.			
		Inflation pressure 69 psi.			
	204.	Nose Gear Shock Strut Assembly, Menasco 523500	196 lbs.	(92)	
	205.	Co-rotating Nose Wheels  (a) 2 Goodrich G-3-704-M1 Wheel Assemblies 26x6, Type II, Tube Type	32 lbs.	(95)	
		(b) 2 Goodrich G3-853 Wheel Assemblies	32 lbs.	(95)	
		7.50x14, Type III, Tubeless Type (c) 2 Goodrich 3-903 Wheel Assemblies	32 lbs.	(95)	
		7.50x14, Type III, Tube Type (d) 2 Goodyear 9531502 Wheel Assemblies 7.50x14, Type III, Tube or Tubeless Type	34 lbs.	(95)	
		Wheel assemblies must be installed in pairs of the same part number.			
	206.	<ul> <li>Nose Wheel Tires</li> <li>7.50x14, 8 ply rating, Type III, Tube Type, with standard Type III tube with TR-176A form E 70° bent valve stem</li> </ul>	58 lbs.	(95)	

 $\begin{array}{c} \text{form E 70° bent valve stem} \\ \text{(b)} \quad 7.50\text{x}14, 8 \text{ ply rating, Type III,} \end{array}$ 

Tubeless Type

47 lbs.

(95)

10 lbs.

(60)

Landing Gear (Cont'd)		Tires must be installed in pairs of the same size, type and tread. With equalized air pressures, tires to match within 0.50 inch in circumference.		
		It is not acceptable to install a tubeless tire on a tube-type wheel without a tube.		
		The maximum permissible weight of a tire and tube or tubeless tire is 30.8 pounds. Either new or retreaded, the total weight of a tire and tube or tubeless tire must not exceed this limit.		
		Inflation pressure 58 psi.		
	208.	Decelostat (Westinghouse Air Brake Co.) installation per Westinghouse Dwgs. P20822 and 1126A as shown in Westinghouse Data Pamphlet Convair 340 or 440 Airplane.	41 lbs.	(409)
Electrical Equipment				
	300.	Batteries (a) 2 Exide 6-FH-13 (12 v 88 ampere hours) (b) 1 Exide 12-TAS-13F (24 v 51 ampere hours)	155 lbs. 104 lbs.	(424) (424)
	310.	Generators  (a) 2 Eclipse-Pioneer 30E02-9-C (375 amps)  (b) 2 Eclipse-Pioneer 30E02-9-E (375 amps)  (c) 2 Eclipse-Pioneer 30E02-9-F (375 amps)  (d) 2 Eclipse-Pioneer 30E02-9-G (375 amps)  (e) 2 General Electric 2CM82D2 (375 amps)	128 lbs.	(308)
Interior Conjunct		Generator continuous full load current rating (375 amps) is based on a minimum air blast cooling pressure of 8" $H_2O$ and a maximum inlet temperature of $40^{\circ}C$ ( $104^{\circ}$ F).		
Interior Equipment	401.	FAA Approved Airplane Flight Manual - Model 340.		
	405.	FAA Approved Airplane Flight Manual - Model 440 (ZM-440-010).		
	419.	Oxygen System Installation (a) Oxygen system (CVAC Dwg. No. 340-3090401) (b) Oxygen system (CVAC Dwg. No. 340-3090402) (c) Oxygen system (CVAC Dwg. No. 340-3090404)	54 lbs. 54 lbs. 55 lbs.	(216) (216) (216)
	428.	<ul> <li>Cabin Compressor</li> <li>(a) AiResearch No. 57370 (Aero Shell 1AC fluid - electrically controlled cabin pressure system)</li> <li>(b) AiResearch No. 57430 (Skydrol fluid - electrically controlled cabin pressure system)</li> <li>(c) AiResearch No. 205120 (Aero Shell 1AC fluid - pneumatically controlled cabin pressure system)</li> <li>(d) AiResearch No. 205130 (Skydrol fluid - pneumatically controlled cabin pressure system)</li> </ul>	68 lbs.	(308)

Interior Equipment (Cont'd)

429. Windshield Wipers Installation (ALCO Controls) (CVAC Dwg. No. 340-3190601)

450. Automatic Pilot System Installation

- (a) Sperry A-12 or E-4 (2 servo units Sperry No. 678919-161 aileron and rudder, 1 servo unit Sperry No. 678919-461 elevator, and 1 Servo unit Sperry Unit 658648-11 elevator trim tab) and Sperry SP-20 (identical to the A-12 but equipped with a magnetic amplifier, Sperry S/N 618319-1, and electrical engaging and disengaging switches in addition to the manual engaging lever).
  - (1) Servo stall forces measured in lbs. at the pilot's controls:

Rudder: Max. 61 Min. 46
Aileron: Max. 26 Min. 24
Elevator: Max. 17 Min. 9
Minimum stall forces are satisfactory for automatic approach.

- (2) When using autopilot in cruise configuration the minimum terrain clearance is 1500 ft. When using autopilot in approach configuration the minimum terrain clearance is 200 ft., pilot's seat belt fastened and hand on control wheel. The minimum altitude in each case does not override any higher minimum operational altitudes.
- (3) Model 340 airplanes FAA approved Convair 340 AFM with revision dated 5-7-59 is required when the Sperry SP-20 autopilot is installed. Model 440 airplanes - FAA approved Convair 440 AFM with Revision No. 17 dated September 9, 1958, is required when the Sperry SP-20 autopilot is installed.

\*(b) Lear L-5 in accordance with Lear Dwg. 73950 (3 main servos 118AU, elevator tab servo 2216B, rudder tab servo 2216C)

(1) Servo stall torques measured in inch pounds at the servos:

Rudder: Max. 100 Min. 80
Aileron: Max. 185 Min. 150
Elevator: Max. 200 Min. 160
These torques are satisfactory for automatic approach.

- (2) Maximum speed for autopilot operation is 300 mph. (See FAA approved Airplane Flight Manual for altitude loss during autopilot malfunctions.)
- (3) FAA approved Lear AFM Supplement dated May 25, 1954, is required.

(Use actual wt. & arm)

(Use actual wt. & arm)

#### De-Icing Equipment

500. 2 Propeller De-icing Installation

(a) De-icing assembly (Ham. Std. No. 79000-2) 56 lbs. (236)

(Used with 43E60-9 Hub, 6895A Blades only.)

(b) De-icing and control brush bracket assembly, 20 lbs. (236)

non-rotating (Ham. Std. No. 88870)

(c) De-icing and control brush bracket assembly, 20 lbs. (236)

non-rotating (Ham. Std. No. 511719)

Ham. Std. No. 511719 is alternate and interchangeable with Ham. Std. No. 88870.

#### Miscellaneous

601. Hydraulic fluid in system and reservoir (14 U.S. gal.)

(a) Skydrol main hydraulic system fluid 127 lbs. (142)

(b) MIL-H-5606 main hydraulic system fluid 98 lbs. (142)

#### NOTE 1

NOTE 2

- (a) Current weight and balance report including list of equipment included in certificated weight empty, and loading instructions, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system). Manufacturer's Master Equipment List contains list of approved equipment in addition to equipment listed in this specification.
- (b) The airplane must be loaded so that the C.G. is within the specified limits at all times, with the effects of fuel use, gear retraction, and movement of the crew and passengers from their assigned positions being considered. (Model 340: Retraction of the main and nose gears causes the C.G. to move forward, the change in moment due to this retraction being -88,926 in. Lbs. Model 440 and Model 340 incorporating Service Bulletin 340-217: Retraction of the main and nose gears causes the C.G. to move forward, the change in moment due to this retraction being -92,124 in. lbs.)
- (c) "System Fuel and Oil" (Items 105 and 112) which must be included in the empty weight, is that amount required to fill both systems and the tanks up to the tank outlets to the engines, when the airplane is in the level attitude. The propeller feathering oil in aircraft incorporating Hamilton Standard propellers, is not considered usable oil and is included in the "system oil". The nacelle oil tank capacities shown in this specification include only the usable oil for which the tanks are to be placarded. All hydraulic system fluid (See Item 601) must also be included in the empty weight of the airplane.
- (d) The fuel capacity is the amount of fuel measured by the fuel gages with the airplane in level attitude and tanks full. The "unmeasurable fuel" is approximately 15 U.S. gallons, and is the amount of fuel remaining in the tanks when the fuel gages read <u>ZERO</u>. The "unmeasurable fuel" must either be included in the airplane empty weight or be suitably accounted for in the airplane weight and balance report.
- (e) For passengers and extra crew members seat locations, see Approved Loading Schedule for the particular airplane.
- (a) The following placards must be displayed on the instrument panel in full view of the pilot:
  - (1) "This airplane must be operated in compliance with the operating limitations specified in FAA Approved Airplane Flight Manual."
  - (2) Fuel Valves. "Fuel transfer from tank to tank is prohibited. When operating with the crossfeed system, turn off fuel valve for tank not being used."

NOTE 2 cont'd

NOTE 3

(b) The following placards must be installed in the cabin:

(1) Placards restricting use during takeoff and landing, and limiting the number of occupants at any time as follows:

"Lavatory - 1 person"

(a) Applicable to Model 340 Aircraft.

When water-alcohol injection is not used for takeoff on aircraft equipped with P&W engines, Item 100(a) and (d), temporary operation may be accomplished in accordance with the procedure in the emergency Operating Procedures Section of the FAA Approved Airplane Flight Manual. Continuous operation with "Dry" rating takeoff power (2800 r.p.m.) may be accomplished in accordance with Appendix "A" of the FAA Approved Airplane Flight Manual. Continuous operation with "Dry" takeoff power (2700 r.p.m.) may be accomplished on same Models in accordance with Appendix "B" of the FAA Approved Airplane Flight Manual. While dry takeoff procedures for the CB4, CB17 or R-2800-83AM7 engines are not included in the Model 340 Approved Airplane Flight Manual, temporary and continuous operating procedures and performance information as outlined above for the CB3/CB16 engines may be utilized.

(b) Applicable to Model 440 Aircraft.

When water-alcohol injection is not used for takeoff on aircraft equipped with P&W Engines, Item 100(a), (b), (c), (d) or (e), operations may be conducted in accordance with the following sections of the FAA Approved Airplane Flight Manual:

```
CB16 and R-2800-103W (2800 r.p.m.): Section 3, Part "D" CB16 and R-2800-103W (2700 r.p.m.): Section 3, Part "E" CB17 and R-2800-103W (2800 r.p.m.): Section 3, Part "J" CB3 (2800 r.p.m.): Section 3, Part "D" - ZM 440-010 CB3/4 Supplement CB3 (2700 r.p.m.): Section 3, Part "E" - ZM 440-010 CB3/4 Supplement CB4 (2800 r.p.m.): Section 3, Part "J" - ZM 440-010 CB3/4 Supplement
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(a) Applicable to Model 340 Aircraft.

Ferry permits may be issued to all Model 340 aircraft on which the automatic propeller feathering system is inoperative. Continuous operation with the automatic propeller feathering system inoperative can be accomplished on some Models in accordance with Appendix "C" of the FAA Approved Airplane Flight Manual. Operating procedures, power ratings and performance data contained in Appendix "C" of the Approved Airplane Flight Manual applicable to the CB3/CB16 engines may be used for the CB4/CB17 engines.

(b) Applicable to Model 440 Aircraft.

Ferry permits may be issued to all Model 440 aircraft on which the automatic propeller feathering system is inoperative. Continuous operation with the automatic propeller feathering system inoperative can be accomplished in accordance with the following sections of the FAA Approved Airplane Flight Manual:

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CB16 and R-2800-103W: Section 3, Part "F"
CB17 and R-2800-103W: Section 3, Part "K"
CB3: Section 3, Part "F" - ZM 440-010 CB3/4 Supplement
CB4: Section 3, Part "K" - ZM 440-010 CB3/4 Supplement
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<u>Part 1</u>. The Model C-131E is a military cargo version of the Model 440, including the installation of a cargo door and bail-out door on the left side of the fuselage, a cargo floor and installation of various items of military equipment. Before the Model C-131E aircraft may be considered eligible for certification as a Model 440-72 cargo carrier, the following must be accomplished: (all references to CAR 4b in this NOTE are to CAR 4b, effective July 20, 1950 and Amendment #1, #3, and #5).

NOTE 4

NOTE 5

NOTE 5 (Cont'd)

- (a) The "Conformity Certificate Military Aircraft" (CAA Form ACA 970) together with all maintenance overhaul and modification records of each aircraft must be reviewed for changes made by the military services which may affect airworthiness of the aircraft.
- (b) The aircraft must be reworked and/or modified in accordance with the following Airworthiness Directives or an alternate modification approved by the FAA:

55-15-02	56-24-01	59-01-01	77-10-11
55-18-01	56-24-02	59-02-01	78-17-04
56-04-02	56-27-01	59-04-02	78-22-04
56-18-02	57-12-05	63-06-03	80-08-03
56-20-04	58-01-03	68-07-01	

The inspections, as applicable, and possible modifications or rework as required by the following Airworthiness Directives shall be accomplished in the manner prescribed in each AD:

57-14-01	70-12-01	73-19-11	92-06-06
60-14-01	70-12-05	74-16-01	92-25-13
63-10-03	70-12-07	81-22-02	93-04-03
63-11-02	70-13-02	82-19-02	93-24-06
63-15-04	71-02-03	83-01-02	96-03-04
64-18-04	71-21-04	87-17-10	
65-12-01	73-07-01	90-13-13	
68-10-04	73-18-01	91-12-05	

Note: All applicable Airworthiness Directives must be complied with.

- (c) Each airplane must be inspected for possible hidden damage, and for workmanship and materials used in making any repairs, to determine that the repairs and/or modifications comply with the pertinent CAR.
- (d) The relief tube installation shall be removed or made permanently inoperative and a thorough inspection made of the rear of the fuselage and empennage for corrosion and possible structural damage. All corroded and damaged areas must be suitably replaced or repaired.
- (e) The oxygen system must be evaluated to determine that it meets the pertinent Civil Air Regulations.
- (f) The instrument panel and markings must be evaluated for compliance with CAR 4b.600 through 4b.613 and 4b.737.
- (g) The cargo compartments shall be placarded designating cargo load limits as follows:

		Max.	Max. Load per	Max. Load
Cargo	Fuselage	Capacity	Running Ft.	per Sq. Ft.
Compartment	Station	(Pounds)	(Pounds)	(Pounds)
С	176.5-254.5	4900	750	300
D	254.5-314.5	5000	1000	300
Е	314.5-375.0	5000	1000	300
F	375.0-435.5	5000	1000	300
G	435.5-494.5	5000	1000	300
H	494.5-554.5	5000	1000	300
I	554.5-614.5	3800	750	300
J	614.5-676.5	3800	750	300
K	676.5-754.5	3000	750	300

(h) The bail-out door shall be placarded as an emergency exit in accordance with CAR 4b.738(c).

- (i) Hand fire extinguishers shall be provided in accordance with CAR 4b.605(j).
- (j) A FAA Approved Flight Manual must be provided for each airplane prior to certification as a Civil Aircraft.
- (k) Any autopilot not complying with Item 450 of this Aircraft Specification shall be rendered inoperative.
- (1) Data pertaining to the interior arrangement of the aircraft must be submitted to the Administrator to determine that such items as emergency exits, placards, cargo accommodations, etc. comply with the applicable Civil Air Regulations and Federal Aviation Regulatoins..

<u>Part 2</u>. To be eligible as a passenger carrying aircraft, the following modification must be made to the Model 440-72 cargo aircraft in addition to those modifications specified in Part 1 of this NOTE.

- (m) A lockable door must be provided between the flight deck and cabin in accordance with CAR 4b.350(e) and (f).
- (n) Data pertaining to the interior arrangement of the aircraft must be submitted to the Administrator to determine that such items as emergency exits, seating arrangement, passenger oxygen provisions, placards, cargo accommodations, etc. comply with the applicable Civil Air Regulations and Federal Aviation Regulations..

Replacement parts manufactured by Canadair, Limited, Montreal, Canada, are eligible for installation on Convair aircraft covered by this specification, when accompanied by a Canadair Release Note containing the following statement and bearing a certification signed by a Canadian Department of Transport representative:

"Parts listed on this release note have been manufactured by Canadair as an approved Convair subsidiary manufacturer under Convair Production Certificate No. 605, in accordance with FAR 21."

Model 340 airplanes, S/N 2 through 311, are eligible for operation at Model 440 weights and performance limitations as shown in the Model 440 FAA Approved Airplane Flight Manual when the modifications outlined in Convair Service Bulletin 340-144 have been incorporated.

Pratt and Whitney R-2800-52W and R-2800-99W engines (Military Designations) are equivalent to the Pratt and Whitney Double Wasp CB17 as shown on Engine Specification 5E-8. Convair 340 type carburetor (PR-58E5-17) must be used if R-2800-52W or R-2800-99W engines are installed. The accessory drive must be modified to accept the Convair 340 Cabin Compressor if the aircraft is to be certified for pressurized operations. The engine limits for the R-2800-52W and R-2800-99W are the same as those specified herein for the CB17 engine.

NOTE 6

NOTE 7

NOTE 8

NOTE 9

The Model C-131D airplanes are military transport versions of the commercial Model 340 or Model 440. Prior to certification of these airplanes as a Model 340-67, 340-68, 340-79 or 440-79, the following must be accomplished:

(a) The aircraft must be reworked and/or modified in accordance with the following Airworthiness Directives or an alternate modification approved by the FAA:

55-15-02	56-24-01	59-01-01	68-07-01
55-18-01	56-24-02	59-02-01	77-10-11
56-04-02	56-27-01	59-04-02	78-17-04
56-18-02	57-12-05	63-06-03	78-22-04
56-20-04	58-01-03	67-02-03	80-08-03

The inspections, as applicable, and possible modifications or rework as required by the following Airworthiness Directives shall be accomplished in the manner prescribed in each AD:

55-03-01	68-10-04	73-18-01	91-12-05
57-14-01	70-12-01	73-19-11	92-06-06
60-14-01	70-12-05	74-16-01	92-25-13
63-10-03	70-12-07	81-22-02	93-04-03
63-11-02	70-13-02	82-19-02	93-24-06
63-15-04	71-02-03	83-01-02	96-03-04
64-18-04	71-21-04	87-17-10	
65-12-01	73-07-01	90-13-13	

Note: All applicable Airworthiness Directives must be complied with.

- (b) Each airplane must satisfactorily pass an inspection for conformity to data sheet, possible hidden damage, corrosion, workmanship and materials used in making any repairs and/or alterations.
- (c) The maintenance, overhaul and modification records of each aircraft must be reviewed for changes made by the military services that may affect the airworthiness of the aircraft. Modifications and changes of equipment which affect the safety or performance of the aircraft must be removed or approved by the Federal Aviation Administration.
- (d) Instrument markings and placards must be installed as required by this Specification and the pertinent Civil Air Regulation.
- (e) Each airplane must be weighed to determine its weight and balance, and an approved loading chart or device installed and flight tested by the applicant. If changes have been made to the original aircraft that may affect the flight characteristics, the particular aircraft must be flight tested by the FAA to determine that the airplane as modified will still meet the minimum requirements of CAR 4b in this regard. Upon completion of the conversion to certified status, an additional nameplate should be installed on the aircraft adjoining the manufacturer's nameplate and should include the name of the agency accomplishing the conversion, the date of the conversion and the new commercial model designation. Under no circumstances should the original or any succeeding nameplate be altered or removed from the aircraft.
- (f) An FAA Approved Airplane Flight Manual must be provided for each aircraft.

Following is a listing of Convair Model and Version numbers with CVAC Serial Number and USAF Serial Number:

NOTE 9 (Cont'd

C-131D (340-67): CVAC s/n 204 (54-2808), 205 (54-2809), 208 (54-2811),

209 (54-2812), 216 (54-2814), 217 (54-2815), 220 (54-2816), 221 (54-2817), 225 (54-2818), 226 (54-2819), 228 (54-2820), 231 (54-2821), 232 (54-2822), 234 (54-2823), 235 (54-2824) and

238 (54-2825)

C-131D (340-68): CVAC s/n 183 (54-2805)

C-131D (340-79): CVAC s/n 201 (54-2806), 203 (54-2807), 206 (55-290),

207 (54-2810), 212 (55-291), 215 (54-2813), 223 (55-295),

224 (55-296), 229 (55-298) and 233 (55-300)

C-131D (440-79): CVAC s/n 315 (55-292), 316 (55-293), 321 (55-294),

322 (55-297), 326 (55-299) and 329 (55-301)

(h) Some C-131D aircraft (Model 440 versions) were delivered with a mechanism to jettison the rear service door (Ref: Convair drawings 340-7790017 and 340-3550550). As this feature has not been evaluated by the FAA for its effects on the safety of the aircraft in civil operation this mechanism must be removed in its entirety and the rear service door installation and rear service door forward hinge cone installation must conform to an approved Model 440 configuration (Ref: Convair drawings 340-3510604-803 and 340-3550570).

The Model C-131B is a military electronics test bed/transport version of the Model 340 including a litter door on the left side of the fuselage, a bail-out door and installation of various items of military equipment. Prior to certification of these airplanes as a Model 340-70 the following must be accomplished:

- (a) The aircraft must be modified in accordance with Report No. GDC-272-0/80-1199, Revision No. 1, dated August 13, 1980, or equivalent report approved by the FAA.
- (b) The aircraft must be reworked and/or modified in accordance with the following Airworthiness Directives or an alternate modification approved by the FAA:

55-15-02	56-24-01	59-01-01	77-10-11
55-18-01	56-24-02	59-02-01	78-17-04
56-04-02	56-27-01	59-04-02	78-22-04
56-18-02	57-12-05	63-06-03	80-08-03
56-20-04	58-01-03	68-07-01	

The inspections, as applicable, and possible modifications or rework as required by the following Airworthiness Directives shall be accomplished in the manner prescribed in each AD:

55-03-01	68-10-04	73-18-01	91-12-05
57-14-01	70-12-01	73-19-11	92-06-06
60-14-01	70-12-05	74-16-01	92-25-13
63-10-03	70-12-07	81-22-02	93-04-03
63-11-02	70-13-02	82-19-02	93-24-06
63-15-04	71-02-03	83-01-02	96-03-04
64-18-04	71-21-04	87-17-10	
65-12-01	73-07-01	90-13-13	

Note: All applicable Airworthiness Directives must be complied with.

(c) Each airplane must satisfactorily pass an inspection for conformity to data sheet, possible hidden damage, corrosion, workmanship and materials used in making any repairs and/or alterations.

NOTE 10

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NOTE 10 (Cont'd

- (d) The maintenance, overhaul and modification records of each aircraft must be reviewed for changes made by the military services that may affect the airworthiness of the aircraft. Modifications and changes of equipment which affect the safety or performance of the aircraft must be removed or approved by the Federal Aviation Administration.
- (e) Instrument markings and placards must be installed as required by this Specification and the pertinent Civil Air Regulation.
- (f) Each airplane must be weighed to determine its weight and balance, and an approved loading chart or device installed. If changes have been made to the original aircraft that may affect the flight characteristics or performance, the particular aircraft must be flight tested by FAA to determine that the airplane as modified will still meet the minimum requirements of CAR 4b in this regard. Upon completion of the conversion to certified status, the manufacturer's nameplate on the aircraft should be altered to include the date of conversion and the new commercial model designation. In case the original nameplate is not sufficiently large to include this additional information, a similar plate should be installed near the original plate. Under no circumstances should the original or any succeeding nameplate be altered or removed from the aircraft.
- (g) An FAA Approved Airplane Flight Manual must be provided for each aircraft.

The Model C-131F/R4Y-1 is a military cargo version of the Model 340, including the installation of a cargo door and bail-out door on the left side of the fuselage, a cargo floor and installation of various items of military equipment. Prior to certification of these airplanes as a Model 340-71 the following must be accomplished:

- (a) The aircraft must be modified in accordance with Report No. GDC-272-0/80-1283 dated July 13, 1981, or equivalent report approved by the FAA.
- (b) The aircraft must be reworked and/or modified in accordance with the following Airworthiness Directives or an alternate modification approved by the FAA:

56-24-01	59-01-01	77-10-11
56-24-02	59-02-01	78-17-04
56-27-01	59-04-02	78-22-04
57-12-05	63-06-03	80-08-03
58-01-03	68-07-01	
	56-24-02 56-27-01 57-12-05	56-24-02 59-02-01 56-27-01 59-04-02 57-12-05 63-06-03

The inspections, as applicable, and possible modifications or rework as required by the following Airworthiness Directives shall be accomplished in the manner prescribed in each AD:

55-03-01	68-10-04	73-18-01	91-12-05
57-14-01	70-12-01	73-19-11	92-06-06
60-14-01	70-12-05	74-16-01	92-25-13
63-10-03	70-12-07	81-22-02	93-04-03
63-11-02	70-13-02	82-19-02	93-24-06
63-15-04	71-02-03	83-01-02	96-03-04
64-18-04	71-21-04	87-17-10	
65-12-01	73-07-01	90-13-13	

Note: All applicable Airworthiness Directives must be complied with.

(c) Each airplane must satisfactorily pass an inspection for conformity to data sheet, possible hidden damage, corrosion, workmanship and materials used in making any repairs and/or alterations.

NOTE 11

NOTE 11 (Cont'd)

- (d) The maintenance, overhaul and modification records of each aircraft must be reviewed for changes made by the military services that may affect the airworthiness of the aircraft. Modifications and changes of equipment which affect the safety or performance of the aircraft must be removed or approved by the Federal Aviation Administration.
- (e) Instrument markings and placards must be installed as required by this Specification and the pertinent Civil Air Regulation.
- (f) Each airplane must be weighed to determine its weight and balance, and an approved loading chart or device installed. If changes have been made to the original aircraft that may affect the flight characteristics or performance, the particular aircraft must be flight tested by FAA to determine that the airplane as modified will still meet the minimum requirements of CAR 4b in this regard. Upon completion of the conversion to certified status, the manufacturer's nameplate on the aircraft should be altered to include the date of conversion and the new commercial model designation. In case the original nameplate is not sufficiently large to include this additional information, a similar plate should be installed near the original plate. Under no circumstances should the original or any succeeding nameplate be altered or removed from the aircraft.
- (g) An FAA Approved Airplane Flight Manual must be provided for each aircraft.

To be eligible for the installation of P&W Double Wasp CB3/CB4 engines on Model 340 or Model 440 airplanes each 340-6160002 Engine Electrical Junction Box Assembly requires modification by removing the 340-4563128, 340-4563128-1 or 340-4563128-3 Supercharger Control to Firewall Harness Assy and capping the junction box elbow (Ref: 340-6160002-809/-811 or -825/-827 assy configuration), performing the modifications described on drawing 340-7360004, updating the aircraft's weight and balance report including list of equipment installed and ensuring the correct CB3/CB4 AFM supplement is inserted in the appropriate Airplane Flight Manual.

including list of equ